



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,757	06/26/2001	William Martin Snelgrove	13222.00040	7545

27160 7590 09/25/2003

PATENT ADMINSTRATOR  
KATTEN MUCHIN ZAVIS ROSENMAN  
525 WEST MONROE STREET  
SUITE 1600  
CHICAGO, IL 60661-3693

EXAMINER

DUONG, FRANK

ART UNIT	PAPER NUMBER
----------	--------------

2666

DATE MAILED: 09/25/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

# Office Action Summary

Application No.

09/787,757

Applicant(s)

SNELGROVE ET AL.

Examiner

Frank Duong

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 12-27 is/are pending in the application.
- 4a) Of the above claim(s) 15-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This Office Action is a response to the amendment dated 06/30/2003. Amended of the original claims 1-7, 12 and newly added claims 13-27 are pending in the application.

***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-7 and 12-14, drawn to having a plurality of contiguous regions served by respective fixed stations, classified in class 370, subclass 328.
- II. Claims 15-21, drawn to assembly or disassembly of messages having address headers, classified in class 370, subclass 474.
- III. Claims, drawn to converting between protocols, classified in class 370, subclass 466.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as "digitizing the telephonic communication" and "decoding the digitized telephonic communication by stripping the encapsulation added in step (v) from the Internet Protocol data packet". See MPEP § 806.05(d).

Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility

Art Unit: 2666

such as "a first encapsulation function for encapsulating the communication into Internet Protocol data packets each of which includes a time stamp", "a second encapsulation function ... network", and "a stripping function ... communication". See MPEP § 806.05(d).

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as "digitizing the telephonic communication" and "decoding the digitized telephonic communication by stripping the encapsulation added in step (v) from the Internet Protocol data packet". See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group II and III is not required for Group I, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Since Applicants have received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, newly added claims 15-27 are

Art Unit: 2666

withdrawn from consideration as being directed to the non-elected inventions. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 and 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Short et al (USP 6,130,892) (hereinafter "Short").

Regarding **claim 1**, in accordance with Short reference entirety, Short discloses a telecommunication system (FIG. 2) for establishing a desired communication between two points (12 and 14), comprising:

a plurality of telecommunication links to transport data packets (10a and 10b);  
a plurality of telecommunication nodes (10 and 12 and 14) connected by the telecommunication links (10a and 10b) (see connection depicted in FIG. 2);  
an operating system (FIG. 10; RTOS) distributed on the telecommunication nodes (10 and 12 as depicted in FIG. 6) and operable to:

(i) identify at least two operating system functions (see col. 14, lines 41-47) required to effected the desired communication between the first and second points,

Art Unit: 2666

each operating system function including a defined time limit for execution of the function (*see col. 10, lines 42-45, Short discloses Real Time Operating System*);

(ii) distribute the at least two identified operating system functions to respective telecommunication nodes (*see col. 14, lines 41-47*); and

(iii) execute each identified operating system function on its respective telecommunication node such that a corresponding predetermined total execution time limit for executing all identified operating system functions is not exceeded, in order to accomplish the desired communication (*see col. 15, lines 15-25*).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Short further discloses wherein the desired communication uses at least two different protocols (*see col. 8, lines 18-59*) and the operating system is further operable to identify an operating system function to convert said desired communication to required protocols and to distribute the identified protocol conversion function to an appropriate telecommunication node and to execute the identified protocol conversion function (*see col. 8, lines 43-59; col. 10, lines 38-45; col. 11, line 41 to col. 12, line 13; and col. 13, line 15 to col. 14, line 12*).

Regarding **claim 3**, in addition to features recited in base claim 1 (see rationales discussed above), Short further discloses wherein a first one of the at least two operating system functions adds a time stamp to each data packet of the desired communication received from the first point (*see FIGs. 2 and 6; Device Selection and col. 8, line 13, Short discusses the device selection function to include TCP/IP or RTP protocol. It is inherent that TCP/IP or RTP protocol adds a time stamp in each data*

Art Unit: 2666

*packet network*) and a second one of the at least two operating system functions examines the time stamp of each data packet of the desired communication received at the second point and arranges the order and timing of those packets according to the time stamps (see col. 14, line 48 and thereafter, *Short discusses Normadic E-mail. It is inherent Normadic E-mail examines the time stamp of each data packet to queue the received e-mail intended for the recipient of the e-mail message or packet*).

Regarding **claim 4**, in addition to features recited in base claim 3 (see rationales discussed above), Short further discloses wherein the time stamps are generated from a global positioning system reference (see col. 15, lines 26-44, *Short discloses the normadic router will dynamically adapt the communication internetwork, dynamically creating one if necessary, to provide survivable communication in a mobile chaotic environment without the need for centralized control or fixed infrastructure. From the recitation there at, it is implicitly concluded that GPS can be used as a main clock source for the time stamp in the Normadic router*).

Regarding **claim 5**, in addition to features recited in base claim 3 (see rationales discussed above), Short further discloses wherein the time stamps are generated from a system clock available in one of the telecommunication links (see col. 15, lines 26-44, *Short discloses the normadic router will dynamically adapt the communication internetwork, dynamically creating one if necessary, to provide survivable communication in a mobile chaotic environment without the need for centralized control or fixed infrastructure. From the recitation there at, it is implicitly concluded that a*

Art Unit: 2666

*system clock from another device or a cesium-based clocking device can be used as a main clock source for the time stamp in the Normadic router).*

Regarding **claim 12**, in addition to features recited in base claim 1 (see rationales discussed above), Short further discloses wherein available operating system functions include encryption services (*see col. 3, line 6 and thereafter, Short discloses Normadic router supports security services*).

Regarding **claim 13**, in addition to features recited in base claim 1 (see rationales discussed above), Short further discloses wherein overall loads on the telecommunication nodes and telecommunication links are dynamically balanced by the operating system (*see col. 3, lines 5-10 and thereafter, Short discloses the Normadic router supports fault tolerance by supporting multiple communication substrates. It is inherent that fault tolerance includes load balancing*).

#### ***Allowable Subject Matter***

4. Claims 6-7 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record (Short or any listed below), considered individually or in combination, fails to fairly show or suggest the claimed invention of base claim 1 and further limit with the novel steps of "determine the computational requirements of each identified operating system functions; and determine the unused computational



Art Unit: 2666

resources of telecommunication nodes" to balance the computational loads, structurally and functionally in a manner set forth as recited in the dependent claim 6. Dependent claims 7 and 12 further limit the indicated allowable base claim 6.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kotzin et al (USP 5,796,722).

Budka (USP 6,014,567).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the

Art Unit: 2666

examiner should be directed to Frank Duong whose telephone number is (703) 308-5428. The examiner can normally be reached on 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Frank Duong  
September 21, 2003

Seema S. Rao  
Supervisor Patent Examiner



DANG TON  
PRIMARY EXAMINER